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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,788	11/14/2001	Bruce M. Russell	IR 6555-00	5839
30751	7590	03/23/2005	EXAMINER	
BANNER & WITCOFF, LTD., ATTORNEYS FOR RESERVE CLIENT NO. 3 1001 G STREET, N.W., 11TH FLOOR WASHINGTON, DC 20001-4597			BALSIS, SHAY L	
			ART UNIT	PAPER NUMBER
			1744	

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. <u>09/992,788</u>	Applicant(s) <u>RUSSELL ET AL.</u>	
	Examiner Shay L Balsis	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Brice (USPN 5499421).

Brice teaches a toothbrush manufactured from three preformed components (5, 6, 4a), which are welded together to form a toothbrush (col. 7, lines 1-21). The preformed components are a neck and a two brush heads. Brice teaches that the “heads may flex in any single direction or combination of different directions...The degree of flexure of each neck portion segment can be easily controlled by for example, increasing or decreasing the length of the neck portion...or using different material” (col. 9, lines 51-59). Brice therefore, teaches that the since the components may be made using different material, it is clear that the components would have a different melt flow rate from each other.

Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kramer (USPN 6066282).

Kramer teaches a toothbrush manufactured from two preformed components (1, 7), which are welded together to form a toothbrush (col. 2, lines 58-68). The preformed components are a neck and a handle. An elastomeric material to form a gripping means surrounds the handle. Kramer teaches molding the head and then injecting a second material into a mold to create the

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handle. If the second material is injected at a lower temperature than the melting point of the head material than the head and handle may be free to rotate about the ball and socket joint between the head and the handle formed (col. 5, lines 39-44). Once the head and handle are both formed and semi-connected, the preformed components are transferred to the cavity of a further molding tool wherein an elastomeric material is injected around the joint of the head and handle. This causes the elastomeric material to fuse the plastic material of the head and plastic material of the handle (col. 5, lines 45-55).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brice in view of Gartland et al. (USPN 6682620).

Brice teaches all the essential elements of the claimed invention, including that the handles, neck and heads are made from conventional polymers, however fails to teach a specific break strength of the weld. Gartland teaches a method of welding thermoset plastic monofilament fabric to provide a continuous method of treating the monofilament fabric. Gartland teaches that the thermoset plastic monofilament fabric have a weld strength of 465 lbs/in (col. 8, lines 45-50). Since Gartland is welding plastic monofilament fibers together and creating a strong weld strength, it would have been obvious to one of ordinary skill in the art at

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the time the invention was made that break strength of Brice's weld is at least at least 465 lbs/in, if not stronger since Brice is welding solid plastic/elastomeric components instead of fibers.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kramer in view of Gartland et al. (USPN 6682620).

Kramer teaches all the essential elements of the claimed invention however fails to teach a specific break strength of the weld. Gartland teaches a method of welding thermoset plastic monofilament fabric to provide a continuous method of treating the monofilament fabric. Gartland teaches that the thermoset plastic monofilament fabric have a weld strength of 465 lbs/in (col. 8, lines 45-50). Since Gartland is welding plastic monofilament fibers together and creating a strong weld strength, it would have been obvious to one of ordinary skill in the art at the time the invention was made that break strength of Kramer's weld is at least at least 465 lbs/in, if not stronger since Kramer is using solid plastic/elastic components instead of fibers.

Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brice

Brice discloses the claimed invention except for making one of the components from an elastomeric material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make one of the components from an elastomer, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kramer.

Kramer discloses the claimed invention except for making one of the components from an elastomeric material. It would have been obvious to one having ordinary skill in the art at the

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time the invention was made to make one of the components from an elastomer, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brice in view of Bonfiglio (EP 0557537).

Brice teaches all the essential elements of the claimed invention however fails to teach that the head and handle are welded by heating each component with hot air. Bonfiglio teaches a method of welding plastics such as thermoplastics comprising an application of direct heat to the surfaces to be welded while pressing the surfaces together. The surfaces are heated by use of a hot air or gas blower. It would have been obvious to use the method of hot air welding on Brice's toothbrush components the method of welding by means of hot air is inexpensive and does not distort the aesthetic appearance of the components.

***Allowable Subject Matter***

As stated in the previous office action, Claims 9 and 10 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 9 states that the toothbrush components must be made from different thermoplastic materials each having a melt flow rate which differ by more than 5 g/10mins. While some of the prior art references teach that the components are made from different materials, none of the references state what the melt flow rates are nor is there motivation to combine references so that the components of the toothbrush made from various materials would have a melt flow rate which differs by more than 5 g/10 mins.

*Applicant's Arguments*

- a. Brice discloses the use of a single material for the brush segments.
- b. Hickey does not disclose the use of thermoplastic material with different melt flow rates.

*Response to Arguments*

a. Applicant's arguments filed 1/4/05 have been fully considered but they are not persuasive. After further reading the Brice reference, the Examiner believes that Brice teaches that the components may be made from different materials. As stated in col. 9, lines 54-60, using different material can control the degree of flexure of each neck portion. If the components are made from a different material then the components each would have different melt flow rates. Col. 9, lines 59-65 Brice also teaches that one of ordinary skill in the art could readily make a toothbrush with any degree of flexure to the liking of the user. Accordingly, detailed mechanical science of controlling the flexure need not be described in order to achieve the objectives of or to understand or carry out the present invention. The examiner finds no teaching in Brice that discloses the use of a single material for the brush segments as stated by the Applicant on page 4 of the Applicant's response. Examiner is asking Applicant to clearly point out where in the Brice reference does it state that only a single material is used for both necks.

b. Applicant's arguments, filed 1/4/05, with respect to Hickey have been fully considered and are persuasive. The rejections with respect to Hickey have been withdrawn.

c. Examiner would like to point out that upon further consideration and search caused by the added limitation to claim 1, that the Examiner has reconsidered Kramer (USPN

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6066282) as a valid reference for a rejection of claims 1-8. Even though it was previously presented in the first office action and then withdrawn in the next office action, the Examiner has reconsidered the reference and the prior arguments that the Applicant had with respect to Kramer and the Examiner believes that the Kramer reference was withdrawn improperly and that the reference clearly reads on the claimed limitations. Kramer teaches that the components may be preformed and then fused together by means of an elastomeric material.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L Balsis whose telephone number is 571-272-1268. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

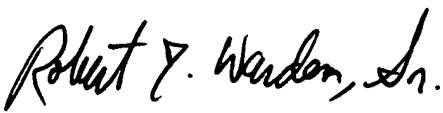


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Slb  
3/16/05

  
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